STAT!Ref® IT!:

Using STAT!Ref to practice Evidence-Based Medicine

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Presentation Goals:

- Define Evidence-Based Medicine (EBM)
- How can STAT!Ref® help with EBM?
- Learn how to STAT!Ref® it! (using PIER)
- Learn about other EBM resources

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EBM is:

The conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of EBM means integrating individual clinical expertise with the best available external clinical evidence from systematic research.

http://www.cebm.utoronto.ca/

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EBM Defined

Evidence-based medicine/healthcare is looked upon as a new paradigm, replacing the traditional medical paradigm that is based on authority.

http://www.herts.ac.uk/lis/subjects/health/ebm.htm

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EBM Practice Requirements

The role modeling, practice, and teaching of evidence-based medicine requires skills that are not traditionally part of medical training.

http://www.cche.net/usersguides/ebm.asp#Abstract

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EBM Defined

It is dependent on the use of randomized controlled trials, as well as systematic reviews (of a series of trials) and meta-analysis, although it is not restricted to these. There is also an emphasis on the dissemination of information, as well as its collection, so that the evidence can reach clinical practice.

http://www.herts.ac.uk/lis/subjects/health/ebm.htm

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EBM Practice Skills

1. Precisely defining a patient problem and what information is required to resolve the problem
2. Conducting an efficient search of the literature; selecting the best of the relevant studies, and applying rules of evidence to determine their validity
3. Presenting to colleagues the content of the literature, and its strengths and weaknesses
4. Extracting the clinical message, and applying it to the patient http://www.cche.net/usersguides/ebm.asp#A

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EBM Practice Skills

The Center for Health Evidence (CHE) refers to this process as the “critical appraisal exercise.”

http://www.cche.net/usersguides/ebm.asp#Abstract

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EBM Steps

In summary, EBM boils down to 4 steps:

1. Questions
2. Search
3. Appraise
4. Apply

http://ebm.bmjjournals.com/misc/slideshwos.shtml

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How can STAT!Ref help?

STAT!Ref® can help with step 2: searching for reliable, evidence-based medical information, quickly!

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What is STAT!Ref®?

STAT!Ref® is an electronic medical library that enables users to cross-search more than 60 core medical references such as *Harrison's Principles of Internal Medicine*, *Williams Obstetrics* and ACP's evidence-based PIER

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How do I...

STAT!Ref® IT!

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STAT!Ref® Search

1. Select Title(s)
2. Enter search statement
3. Set precision
4. Select search options (synonyms & suffixes)
5. Execute search

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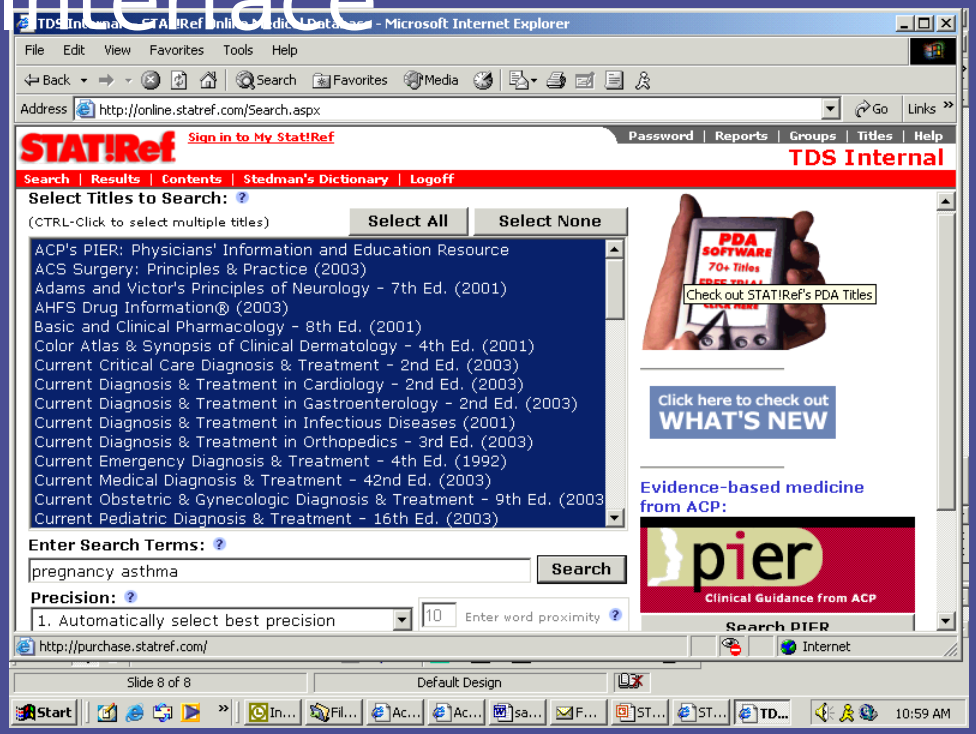
STAT!Ref® User Interface

- Title List
- Search Terms
- Precision Bar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Search | Results | Contents | Stedman's Dictionary | Logoff
Select Titles to Search:
(CTRL-Click to select multiple titles)
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ACP's PIER: Physicians' Information and Education Resource
ACS Surgery: Principles & Practice (2003)
Adams and Victor's Principles of Neurology - 7th Ed. (2001)
AHFS Drug Information® (2003)
Basic and Clinical Pharmacology - 8th Ed. (2001)
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Click here to check out WHAT'S NEW
Evidence-based medicine from ACP:
pier
Clinical Guidance from ACP
Search PIER
Enter Search Terms:
pregnancy asthma
Search
Precision:
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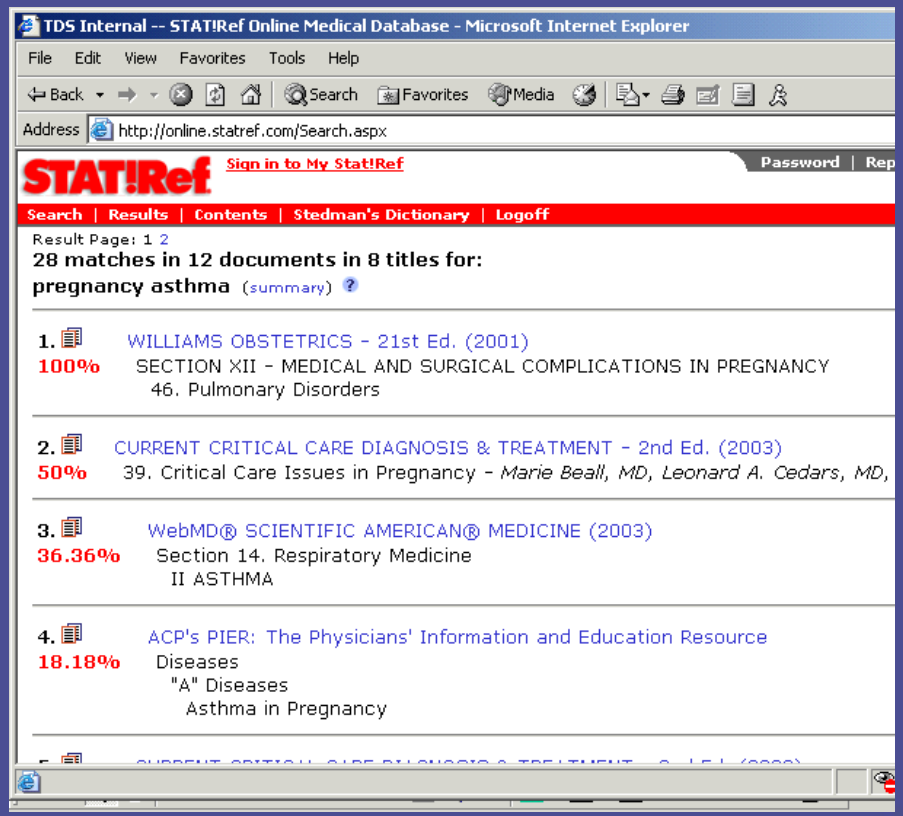
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Result Page: 1 2
28 matches in 12 documents in 8 titles for:
pregnancy asthma (summary)
1. WILLIAMS OBSTETRICS - 21st Ed. (2001)
100% SECTION XII - MEDICAL AND SURGICAL COMPLICATIONS IN PREGNANCY
46. Pulmonary Disorders
2. CURRENT CRITICAL CARE DIAGNOSIS & TREATMENT - 2nd Ed. (2003)
50% 39. Critical Care Issues in Pregnancy - Marie Beall, MD, Leonard A. Cedars, MD,
3. WebMD® SCIENTIFIC AMERICAN® MEDICINE (2003)
36.36% Section 14. Respiratory Medicine
II ASTHMA
4. ACP's PIER: The Physicians' Information and Education Resource
18.18% Diseases
"A" Diseases
Asthma in Pregnancy

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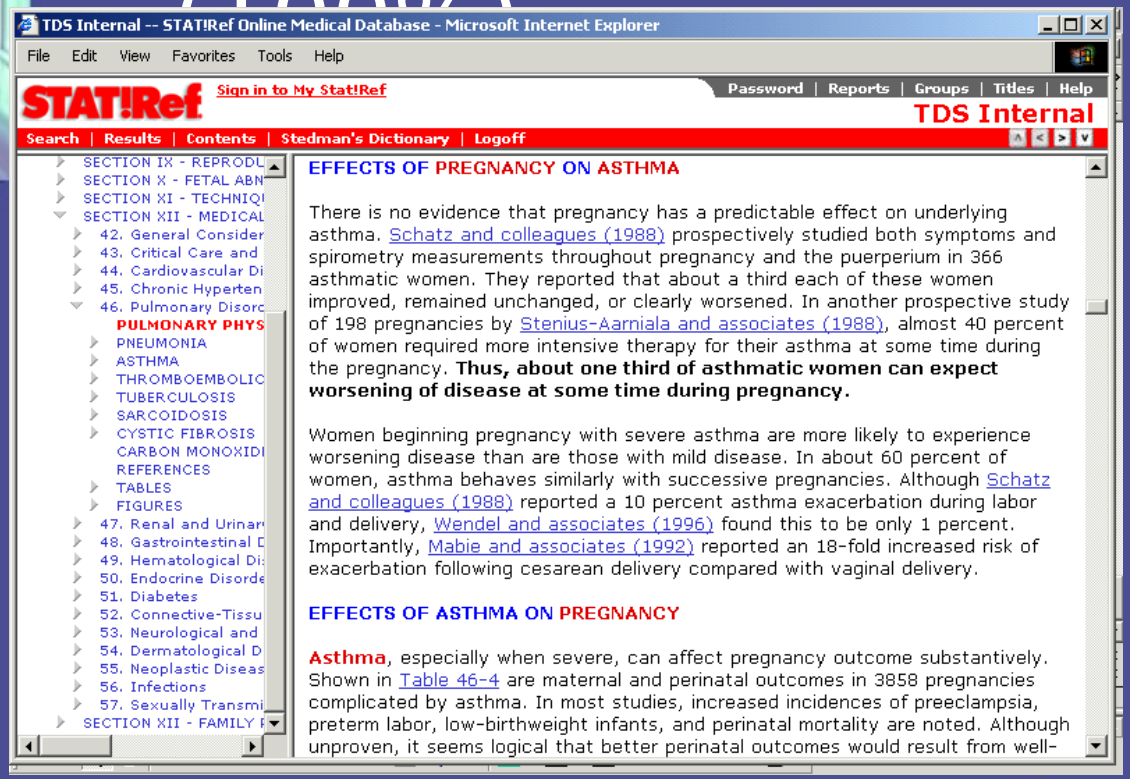
First Result (100%)

- Expandable TOC
- Links to figures/tables
- Search terms in red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Sign in to My Stat!Ref
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Search | Results | Contents | Stedman's Dictionary | Logoff
SECTION IX - REPRODU
SECTION X - FETAL ABN
SECTION XI - TECHNIQ
SECTION XII - MEDICAL
42. General Consider
43. Critical Care and
44. Cardiovascular Di
45. Chronic Hyperten
46. Pulmonary Disorc
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ASTHMA
THROMBOEMBOLIC
TUBERCULOSIS
SARCOIDOSIS
CYSTIC FIBROSIS
CARBON MONOXIDI
REFERENCES
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FIGURES
47. Renal and Urinar
48. Gastrointestinal D
49. Hematological Di
50. Endocrine Disorde
51. Diabetes
52. Connective-Tissu
53. Neurological and
54. Dermatological D
55. Neoplastic Diseas
56. Infections
57. Sexually Transmi
SECTION XII - FAMILY
EFFECTS OF PREGNANCY ON ASTHMA
There is no evidence that pregnancy has a predictable effect on underlying asthma. Schatz and colleagues (1988) prospectively studied both symptoms and spirometry measurements throughout pregnancy and the puerperium in 366 asthmatic women. They reported that about a third each of these women improved, remained unchanged, or clearly worsened. In another prospective study of 198 pregnancies by Stenius-Aarniala and associates (1988), almost 40 percent of women required more intensive therapy for their asthma at some time during the pregnancy. Thus, about one third of asthmatic women can expect worsening of disease at some time during pregnancy.
Women beginning pregnancy with severe asthma are more likely to experience worsening disease than are those with mild disease. In about 60 percent of women, asthma behaves similarly with successive pregnancies. Although Schatz and colleagues (1988) reported a 10 percent asthma exacerbation during labor and delivery, Wendel and associates (1996) found this to be only 1 percent. Importantly, Mabie and associates (1992) reported an 18-fold increased risk of exacerbation following cesarean delivery compared with vaginal delivery.
EFFECTS OF ASTHMA ON PREGNANCY
Asthma, especially when severe, can affect pregnancy outcome substantively. Shown in Table 46-4 are maternal and perinatal outcomes in 3858 pregnancies complicated by asthma. In most studies, increased incidences of preeclampsia, preterm labor, low-birthweight infants, and perinatal mortality are noted. Although unproven, it seems logical that better perinatal outcomes would result from well-

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Evidence-Based

PIER

(Physician's Information and Education Resource)

PIER integration = Peer reviewed !

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PIER: Consult the Experts

Physicians' Information and Education Resource (PIER) is a Web-based decision-support tool designed for rapid point-of-care delivery of current, evidence-based guidance for clinicians.

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PIER: Consult the Experts

Developed by the American College of Physicians (ACP), PIER consists of modules focusing on the diagnosis and treatment of hundreds of the most common diseases, with additional disease topics added monthly.

www.acponline.org

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Demo of a Search

Scenario: A physician wants to look up the most current Evidence-Based Medicine (EBM) information for diabetes to stay up to date on the disease findings

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Search PIER

- Choose “select none” and click on “ACP’s PIER”
- Type in “diabetes”
- Hit “search”

STAT!Ref
Sign in to My Stat!Ref
Search | Results | Contents | Stedman's Dictionary | Logoff
Select Titles to Search:
(CTRL-Click to select multiple titles)
Select All
Select None
ACP's PIER: Physicians' Information and Education Resource
ACS Surgery: Principles & Practice (2003)
Adams and Victor's Principles of Neurology - 7th Ed. (2001)
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Current Diagnosis & Treatment in Orthopedics - 3rd Ed. (2003)
Current Emergency Diagnosis & Treatment - 4th Ed. (1992)
Current Medical Diagnosis & Treatment - 42nd Ed. (2003)
Current Obstetric & Gynecologic Diagnosis & Treatment - 9th Ed. (2003
Current Pediatric Diagnosis & Treatment - 16th Ed. (2003)
Enter Search Terms:
diabetes
Search
Precision:

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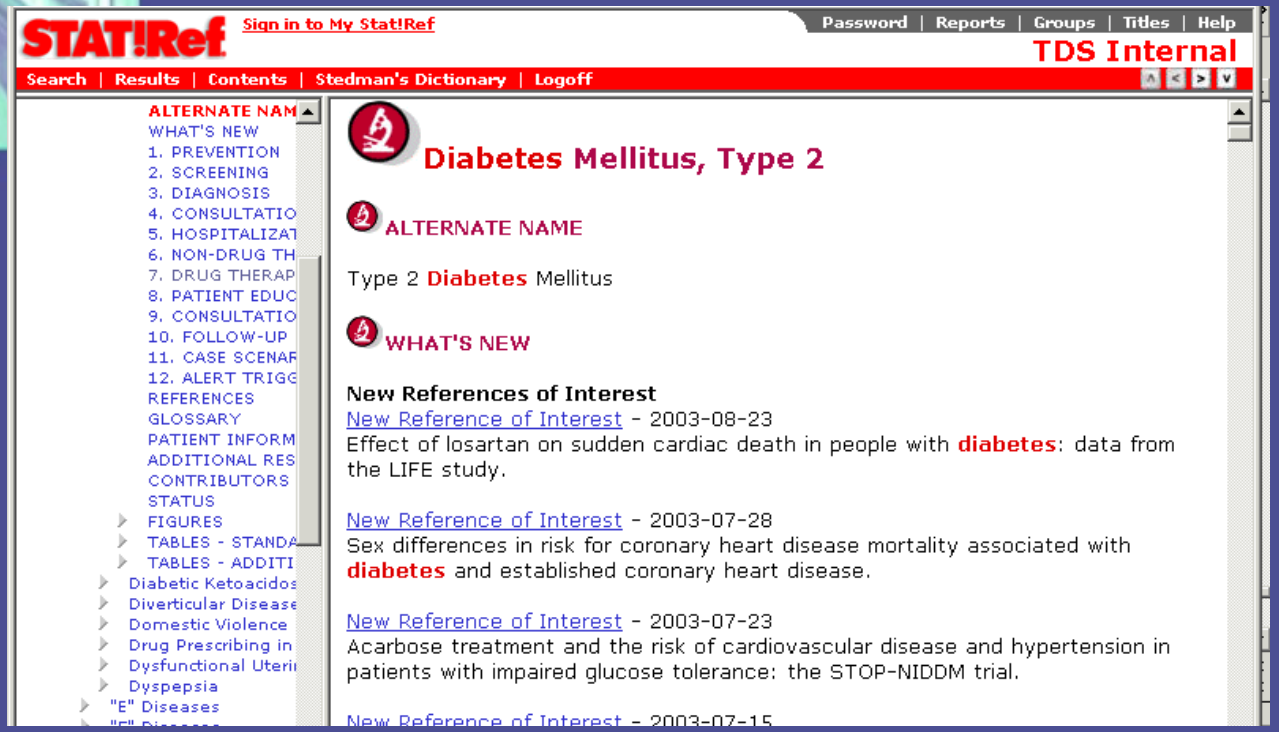
Search PIER

PIER delivers EBM with new info listed first



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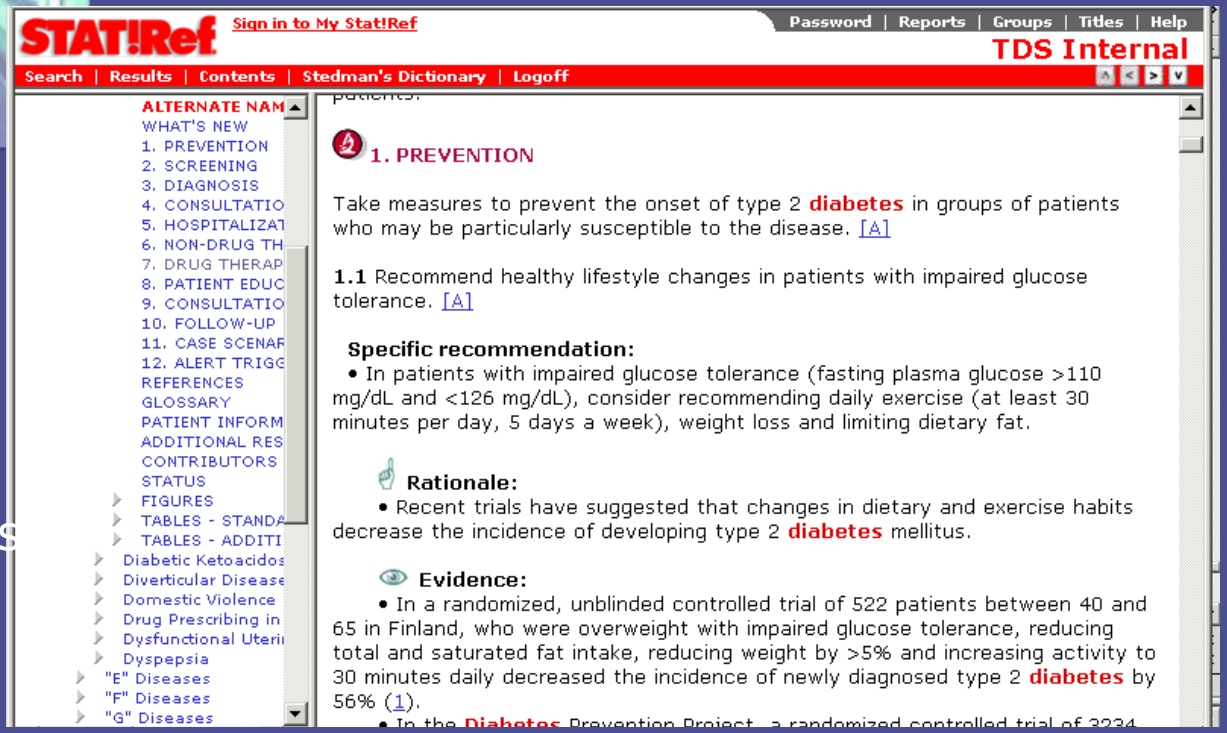
Search PIER

PIER then shows:

1. Prevention
2. Screening
3. Diagnosis
4. Consult for Diagnosis
5. Non-drug Therapy
6. Patient Education
7. Consult for Management
8. Follow-up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Search | Results | Contents | Stedman's Dictionary | Logoff
ALTERNATE NAM
WHAT'S NEW
1. PREVENTION
2. SCREENING
3. DIAGNOSIS
4. CONSULTATIO
5. HOSPITALIZAT
6. NON-DRUG TH
7. DRUG THERAP
8. PATIENT EDUC
9. CONSULTATIO
10. FOLLOW-UP
11. CASE SCENAR
12. ALERT TRIGG
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FIGURES
TABLES - STANDA
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Diabetic Ketoacidos
Diverticular Disease
Domestic Violence
Drug Prescribing in
Dysfunctional Uteri
Dyspepsia
"E" Diseases
"F" Diseases
"G" Diseases
1. PREVENTION
Take measures to prevent the onset of type 2 diabetes in groups of patients who may be particularly susceptible to the disease. [A]
1.1 Recommend healthy lifestyle changes in patients with impaired glucose tolerance. [A]
Specific recommendation:
• In patients with impaired glucose tolerance (fasting plasma glucose >110 mg/dL and <126 mg/dL), consider recommending daily exercise (at least 30 minutes per day, 5 days a week), weight loss and limiting dietary fat.
Rationale:
• Recent trials have suggested that changes in dietary and exercise habits decrease the incidence of developing type 2 diabetes mellitus.
Evidence:
• In a randomized, unblinded controlled trial of 522 patients between 40 and 65 in Finland, who were overweight with impaired glucose tolerance, reducing total and saturated fat intake, reducing weight by >5% and increasing activity to 30 minutes daily decreased the incidence of newly diagnosed type 2 diabetes by 56% (1).

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Integrated PIER

- Choose “select all” titles in your STAT! Ref® Library
- Type in “diabetes”
- Hit “search”

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Sign in to My Stat!Ref
Search | Results | Contents | Stedman's Dictionary | Logoff
(CTRL-Click to select multiple titles)
Select All
Select None
ACP's PIER: Physicians' Information and Education Resource
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Current Obstetric & Gynecologic Diagnosis & Treatment - 9th Ed. (2003
Current Pediatric Diagnosis & Treatment - 16th Ed. (2003)
Enter Search Terms:
diabetes
Search
Precision:
1. Automatically select best precision
10
Enter word proximity

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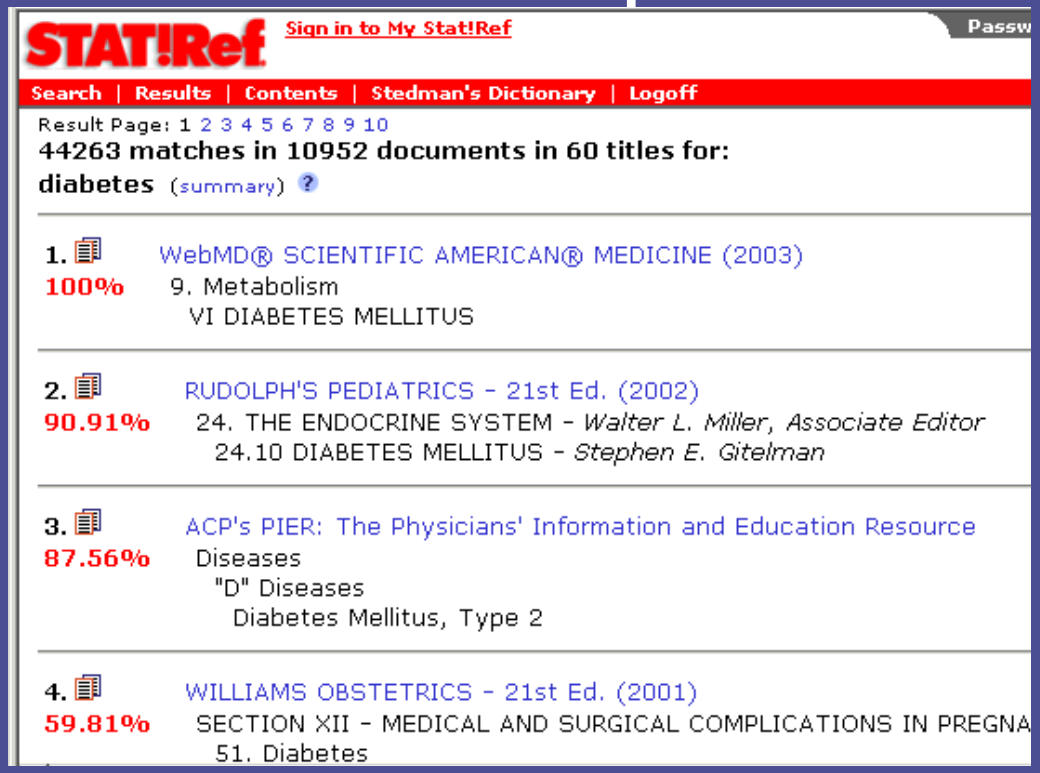
Integrated PIER

- You will have your EBM results along with more traditional results from your other references in one search!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Result Page: 1 2 3 4 5 6 7 8 9 10
44263 matches in 10952 documents in 60 titles for:
diabetes (summary)
1. WebMD® SCIENTIFIC AMERICAN® MEDICINE (2003)
100% 9. Metabolism
VI DIABETES MELLITUS
2. RUDOLPH'S PEDIATRICS - 21st Ed. (2002)
90.91% 24. THE ENDOCRINE SYSTEM - Walter L. Miller, Associate Editor
24.10 DIABETES MELLITUS - Stephen E. Gitelman
3. ACP's PIER: The Physicians' Information and Education Resource
87.56% Diseases
"D" Diseases
Diabetes Mellitus, Type 2
4. WILLIAMS OBSTETRICS - 21st Ed. (2001)
59.81% SECTION XII - MEDICAL AND SURGICAL COMPLICATIONS IN PREGNA
51. Diabetes

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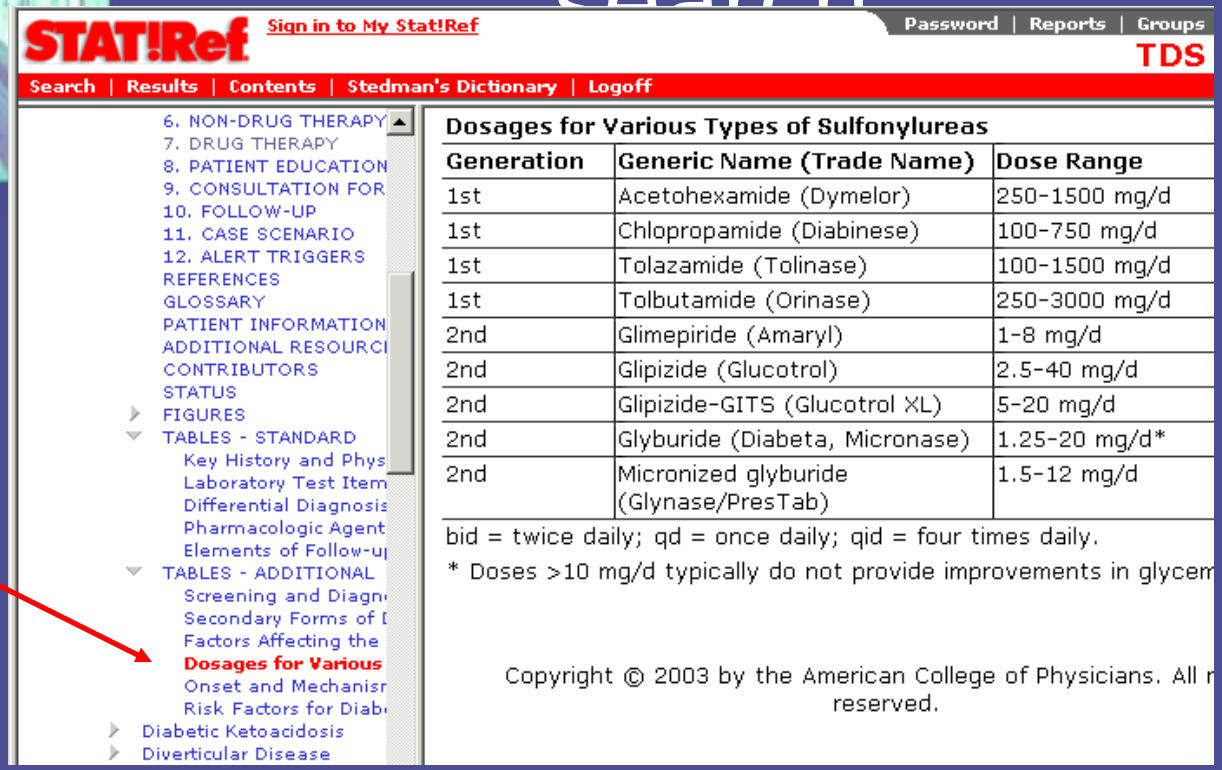
Integrated PIER search

STAT!Ref's PIER is easy to navigate using the expandable TOC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Search | Results | Contents | Stedman's Dictionary | Logoff
6. NON-DRUG THERAPY
7. DRUG THERAPY
8. PATIENT EDUCATION
9. CONSULTATION FOR
10. FOLLOW-UP
11. CASE SCENARIO
12. ALERT TRIGGERS
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ADDITIONAL RESOURCE
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FIGURES
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Key History and Phys
Laboratory Test Item
Differential Diagnosis
Pharmacologic Agent
Elements of Follow-up
TABLES - ADDITIONAL
Screening and Diagn
Secondary Forms of D
Factors Affecting the
Dosages for Various
Onset and Mechanism
Risk Factors for Diab
Diabetic Ketoacidosis
Diverticular Disease
Dosages for Various Types of Sulfonylureas
Generation | Generic Name (Trade Name) | Dose Range
1st | Acetohexamide (Dymelor) | 250-1500 mg/d
1st | Chlopropamide (Diabinese) | 100-750 mg/d
1st | Tolazamide (Tolinase) | 100-1500 mg/d
1st | Tolbutamide (Orinase) | 250-3000 mg/d
2nd | Glimepiride (Amaryl) | 1-8 mg/d
2nd | Glipizide (Glucotrol) | 2.5-40 mg/d
2nd | Glipizide-GITS (Glucotrol XL) | 5-20 mg/d
2nd | Glyburide (Diabeta, Micronase) | 1.25-20 mg/d*
2nd | Micronized glyburide (Glynase/PresTab) | 1.5-12 mg/d
bid = twice daily; qd = once daily; qid = four times daily.
* Doses >10 mg/d typically do not provide improvements in glycem
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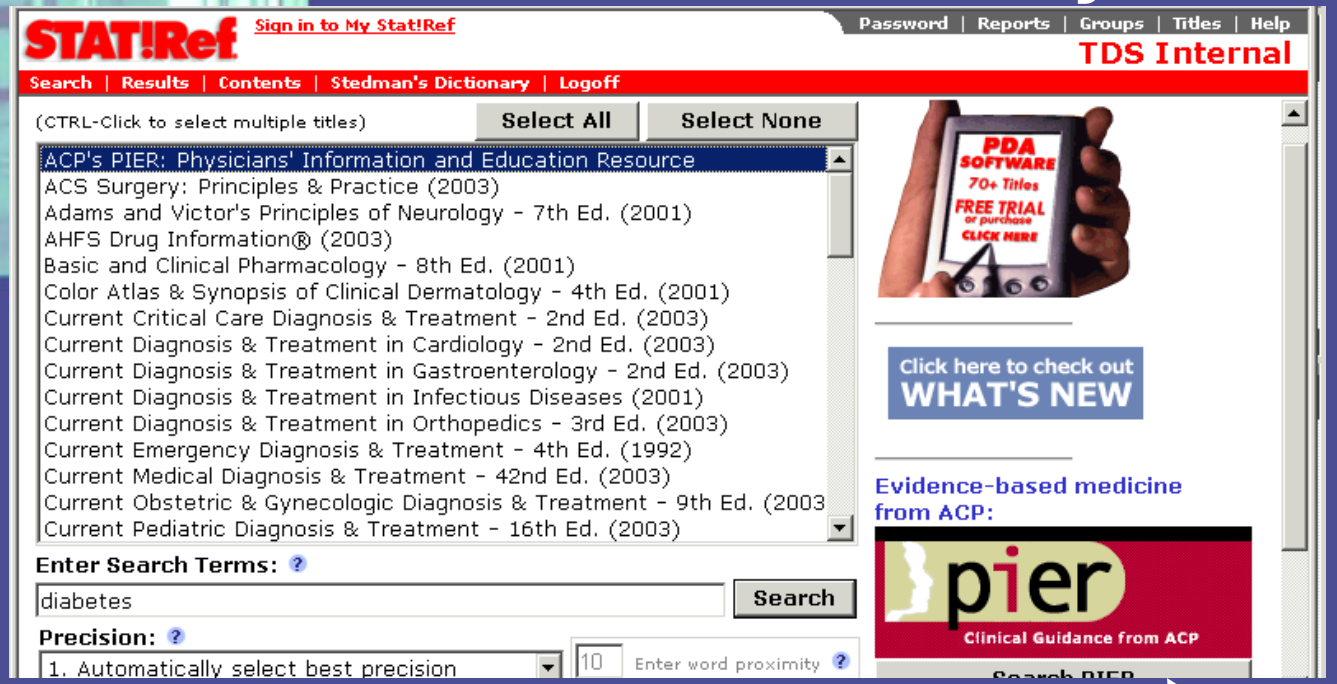
Search 2 ways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from ACP:
pier
Clinical Guidance from ACP
Enter Search Terms:
diabetes
Search
Precision:
1. Automatically select best precision
10
Enter word proximity

1

2

STAT!Ref® allows you to search PIER 2 ways.

1. integrated with other STAT!Ref titles OR
2. stand-alone through ACP's Web site.

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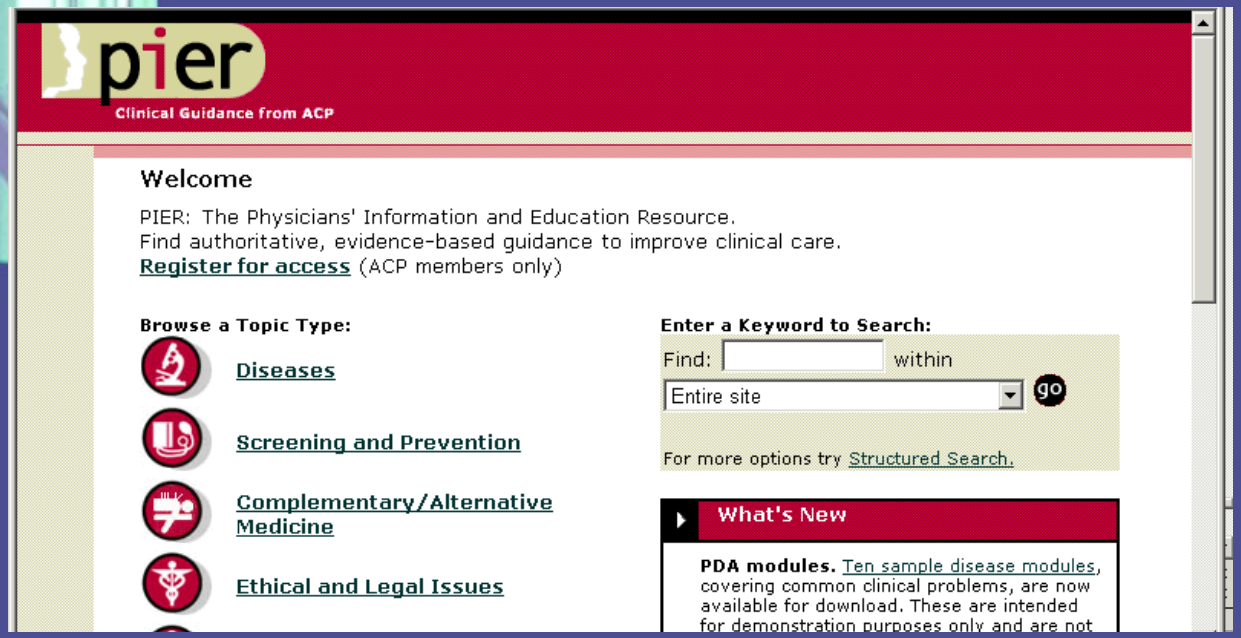
ACP's PIER search


pier
Clinical Guidance from ACP
Welcome
PIER: The Physicians' Information and Education Resource.
Find authoritative, evidence-based guidance to improve clinical care.
Register for access (ACP members only)
Browse a Topic Type:
Diseases
Screening and Prevention
Complementary/Alternative Medicine
Ethical and Legal Issues
Enter a Keyword to Search:
Find:
within
Entire site
go
For more options try Structured Search.
What's New
PDA modules. Ten sample disease modules, covering common clinical problems, are now available for download. These are intended for demonstration purposes only and are not

Many internists are familiar with ACP's user interface, but both interfaces offer the same information

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PIER on PDA

Expert information first hand

- Basic search functionality that is convenient, accurate and intuitive
- Trusted information from the ACP
- A collection of disease modules that can be searched and found alphabetically
- Palm™ Operating System
- Monthly content updates
- Free trial: www.statref.com

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EBM Resources

http://ebm.bmjjournals.com/

http://www.hsl.unc.edu/lm/ebm/

http://www.cebm.net/

http://www.med.ualberta.ca/ebm/ebm.htm

http://www.cebm.utoronto.ca/

http://www.jr2.ox.ac.uk/bandolier/

http://www.ebmny.org/

http://www.herts.ac.uk/lis/subjects/health/ebm.htm

http://www.uic.edu/depts/lib/lhsp/resources/ebm.shtml

http://hiru.mcmaster.ca/

http://www.healthsystem.virginia.edu/internet/library/collecti
/ebm/

http://www.shef.ac.uk/~scharr/ir/netting/

http://pedsccm.wustl.edu/EBJ/EB_Resources.html

http://www.guideline.gov/

http://www.cche.net/che/home.asp

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